

We claim:

1. A denatured collagen type-IV selective peptide antagonist.
2. A denatured collagen type-IV selective peptide antagonist comprising a core amino acid sequence L-K-Q-N-G-G-N-F-S-L.
3. The antagonist of claim 2 wherein the antagonist is a peptide comprising an amino acid sequence NH₂-C-L-K-Q-N-G-G-N-F-S-L-G-COOH.
4. The antagonist of claim 2 wherein the antagonist is a peptide comprising an amino acid sequence NH₂-S-L-K-Q-N-G-G-N-F-S-L-C-COOH.
5. The antagonist of claim 2 wherein the antagonist is a peptide consisting of an amino acid sequence NH₂-K-G-G-C-L-K-Q-N-G-G-N-F-S-L-G-G-K-A-COOH.
6. The antagonist of claim 2 wherein the binding affinity of the denatured collagen type-IV selective antagonist to denatured type-IV collagen is substantially greater than the binding affinity of said antagonist to native collagen type-IV.
7. The antagonist of claim 2 wherein the binding affinity of the selective denatured collagen type-IV antagonist to denatured type-IV collagen is 100-fold greater than the binding affinity of said antagonist to native collagen.
8. The antagonist of claim 2 wherein the selective denatured collagen type-IV antagonist inhibits cellular interaction with denatured collagen type-IV.
9. A pharmaceutical composition comprising a selective denatured collagen type-IV antagonist and a pharmaceutically acceptable excipient.

10. The pharmaceutical composition of claim 9 wherein the composition comprises a cytotoxic agent.
11. The pharmaceutical composition of claim 9 wherein the composition comprises a radioactive material.
12. The pharmaceutical composition of claim 9 wherein the composition comprises a cytostatic agent.
13. A method for inhibiting angiogenesis in a patient comprising:
administering an angiogenesis-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.
14. A method of detecting angiogenesis in a patient comprising:
administering a denatured collagen type-IV selective antagonist to the patient, and
detecting bound selective denatured collagen type-IV antagonist in the patient.
15. A method of treating a tumor in a patient comprising:
administering an angiogenesis-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.
16. A method of treating metastases in a patient comprising:
administering an angiogenesis-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.
17. A method of treating angiogenic disease in a patient comprising:
administering an angiogenesis-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.

18. The method of claim 13 wherein the denatured collagen type-IV selective antagonist is administered:

intravenously, intraperitoneally, intramuscularly, subcutaneously, intracavity, transdermally, topically, intraocularly, orally, intranasally, or by peristaltic means.

19. The method of claim 13 wherein the denatured collagen type-IV selective antagonist dose range is 0.1 milligram per kilogram per day to 300 milligrams per kilogram.

20. The method of claim 13 wherein the denatured collagen type-IV selective antagonist dose range is 10 milligrams to 3000 milligrams.

21. The method of claim 13 wherein the denatured collagen type-IV selective antagonist is administered in combination with a chemotherapeutic agent.

22. The method of claim 13 wherein the denatured collagen type-IV selective antagonist is administered in combination with a radioactive material.

23. The method of claim 13 wherein the denatured collagen type-IV selective antagonist is administered in conjunction with a cytostatic agent.

24. The method of claim 13 wherein the patient is a mammal.

25. The method of claim 13 wherein the patient is a human.

26. A method for inhibiting tumor cell adhesion in a patient comprising:

administering a tumor cell adhesion-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.

27. A method of detecting tumor cell adhesion in a patient comprising:

administering a denatured collagen type-IV selective antagonist to the patient, and detecting bound denatured collagen type-IV selective antagonist in the patient.

28. A method of treating a tumor in a patient comprising:

administering a tumor cell adhesion-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.

29. A method of treating metastasis in a patient comprising:

administering a tumor cell adhesion-inhibiting effective amount of a denatured collagen type-IV selective antagonist to the patient.

30. The method of claim 26 wherein the denatured collagen type-IV selective antagonist is administered:

intravenously, intraperitoneally, intramuscularly, subcutaneously, intracavity, transdermally, topically, intraocularly, orally, intranasally, or by peristaltic means.

31. The method of claim 26 wherein the denatured collagen type-IV selective antagonist dose range is 0.1 milligram per kilogram per day to 300 milligrams per kilogram per day.

32. The method of claim 26 wherein the denatured collagen type-IV selective antagonist dose range is 10 milligrams to 3000 milligrams.

33. The method of claim 26 wherein the denatured collagen type-IV selective antagonist is administered in combination with a chemotherapeutic agent.

34. The method of claim 26 wherein the denatured collagen type-IV selective antagonist is administered in combination with a radioactive material.

35. The method of claim 26 wherein the denatured collagen type-IV selective antagonist is administered in conjunction with a cytostatic agent.

36. The method of claim 26 wherein the patient is a mammal.

37. The method of claim 26 wherein the patient is a human.